

Activity #2: Science in Action

Section 5: Science as a Process

Group 1: What is Free Discovery?

“Children have a need to know. This natural curiosity, a fundamental drive to inquire, is a much a part of life as is breathing and eating. Free Discovery is observation and exploration at the children’s own pace, a means to support their curiosity about the natural and physical environment in which they live. Having the freedom to explore at their own rate, without the fear of getting the ‘wrong’ answers, is critical. In a secure and comfortable environment, children are able to fulfill their natural eagerness to find possible solutions to their own inquiries of why, what, how and when in their own way.” (Rockwell, Sherwood, Williams, and Winnett, pgs. 8-9)

Free Discovery should:

- Allow children to become familiar with materials
- Allow children to make observations and discoveries on their own and to feel good about them
- Build children’s self-esteem through their being in control of their own actions
- Provide no right or wrong answers, and therefore no failure
- Provide a nonthreatening learning time
- Proceed at each child’s own learning pace

(Rockwell, Sherwood, Williams, and Winnett, pg. 8)

Group 2: The Role of Free Discovery

“Using simple equipment and materials, children are given unlimited opportunities to explore and interact in their own ways. There are no set parameters within the limits of acceptable behavior. Exploratory freedom reigns. This can be a difficult time for adults, as we often want to step in at this phase of learning, intercepting children’s natural and spontaneous curiosity with questions and challenges that are adult- rather than child-initiated. Children are often not ready for such interruptions. This phase of learning is the time to play with and explore materials in their own way. Free exploration and play are a need that must be fulfilled before children can see the materials as learning resources.”

(Rockwell, Sherwood, Williams, and Winnett, pgs. 8-9)

Group 3: The Role of the Teacher in Free Discovery

In **Explorations for the Early** Years (Rockwell, Sherwood, Williams, and Winnett, pg.9), the role of the teacher is described as:

- To encourage children to explore and to experiment independently
- To create an atmosphere conducive to learning
- To introduce new ideas, materials, and procedures
- To encourage inquiry and creativity
- To model inquiry, questioning, and problem solving
- To model safe practice
- To provide sufficient materials, information, and space for learning
- To support developmentally appropriate activity
- To assess and evaluate children’s learning

Group 4: The Role of the Children in Free Discovery:

In **Explorations for the Early** Years (Rockwell, Sherwood, Williams, and Winnett, pg.9), the role of the children is described as:

- To care for themselves and function independently
- To understand that they are in control of their actions
- To feel good about discovery
- To cooperate with other children
- To collect data and document activities
- To explore with materials and ideas
- To realize that answers are not right or wrong but simply the results of inquiry
- To communicate about their experiences